

Amendments to the Claims:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

Listing of Claims:

1. (Currently Amended) A method of data encryption in programming of a control unit comprising:

encrypting a complete stream of data to be transmitted in a programming unit using a first key, wherein a byte by byte encryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs;

transmitting the encrypted data to the control unit via a data line; and

decrypting the encrypted data in the control unit using a second key provided in the control unit.

2. (Original) The method of claim 1, wherein the first key and the second key are identical.

3. (Original) The method of claim 1, wherein the first key and the second key are not identical.

4. (Original) The method of claim 2, wherein each one of the first key and the second key includes a table that is accessed by a hash function.

5. (Original) The method of claim 1, wherein at least one of the first key and the second key is implemented in an electronic circuit.

6. (Original) The method of claim 1, wherein at least one of the first key and the second key is implemented in the form of a computer program.

7. (Currently Amended) A data encryption system, comprising:

a programming unit in which a first key is provided;

a control unit in which a second key is provided; and

a data line coupled to the programming unit and the control unit for transmitting encrypted data, the encrypted data being an encryption of a complete stream of data, wherein a byte by byte encryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs.

8. (Original) The system of claim 7, wherein the first key and the second key are identical.

9. (Original) The system of claim 7, wherein the first key and the second key are not identical.

10. (Original) The system of claim 7, wherein the programming unit and the control unit each includes an electronic computing unit and a memory module that are linked together by a data bus.

11. (Currently Amended) A computer program for execution on a computing unit, the computer program comprising:

a program code arrangement for performing an encryption of a complete stream of data in accordance with a table and a hash function, wherein a byte by byte encryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs.

12. (Original) The computer program of claim 11, wherein the computing unit includes an electronic computing unit in a programming unit.

13. (Currently Amended) A computer program for execution on a company unit, the computer program comprising:

a program code arrangement for performing a decryption of a complete stream of data in accordance with a table and a hash function, wherein a byte by byte decryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs.

14. (Original) The computer program of claim 11, wherein the computing unit includes an electronic computing unit in a control unit.

15. (Currently Amended) A computer-readable medium, comprising:

a program code arrangement for performing an encryption of a complete stream of data in accordance with a table and a hash function, wherein a byte by byte encryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs.

16. (Currently Amended) A computer-readable medium, comprising:

a program code arrangement for performing a decryption of a complete stream of data in accordance with a table and a hash function, wherein a byte by byte decryption of the complete stream of data is capable of being performed, and wherein no byte-wise allocation between input and output data occurs.